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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7590 01/27/2003  
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EXAMINER

MUSSER, BARBARA J

ART UNIT PAPER NUMBER

1733

DATE MAILED: 01/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/882,994

Applicant(s)

HOOGLAND ET AL.

Examiner

Barbara J. Musser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2, 5-13, 19, and 23-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, it is unclear what claim this is intended to be dependent on as it is currently dependent on itself.

Regarding claims 5 and 6, it is unclear whether the polycarbonate is required due to the word "optionally". It is unclear how a wt% of zero would further limit the claims.

Claim 7 recites the limitation "said polycarbonate" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is suggested this claim is intended to be dependent from claims 5 or 6. Polycarbonate is formed by the reaction of a compound such as bisphenol A with a carbonate such as phosgene. Thus the polycarbonate cannot be primarily bisphenol as a carbonate is required to form polycarbonate.(see MacGregor et al., Col. 2, ll. 7-49 cited below)

Claim 8 recites the limitation "said decorative" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is suggested this is intended to be – said decorative substrate--.

Regarding claim 9, it is unclear what is meant as a phrase appears to repeat itself in line 1. It is assumed “said decorative substrate said decorative” is intended to be –said decorative substrate--.

Regarding claim 10, it is unclear what is meant by BPA-PC and PCCD. It is suggested the abbreviations be replaced with the proper chemical names.

Regarding claim 19, it is unclear whether the steps of providing the decorative substrate, fitting it into the mold, and injecting resin are the same steps as forming a decorative substrate, placing it into a mold, and injecting resin or are intended to be an additional set of steps.

Regarding claim 23, it is unclear how this claim further limits the independent claim as the independent claim already requires the substrate to have a decorative area (surface) and transferring at least a portion of the decorative surface to the base.

Regarding claim 25, it is unclear how this further limits the claim as claim 20 already requires the substrate to be a cycloaliphatic polyester resin.

### ***Claim Objections***

3. Claim 7 is objected to because of the following informalities: The word “polycasrbonate” appears. It is believed this should be –polycarbonate--. Appropriate correction is required.
4. Claim 14 is objected to because of the following informalities: The word “and” appears in line 2. It is believed this should be –an--. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-13, 20, and 21 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by MacGregor et al.(U.S. Patent 6,136,441).

MacGregor et al. discloses forming an article by placing a cyclo-aliphatic polyester substrate in a mold and injection molding behind it.(Col. 1, ll. 25-30, 56-58)  
The substrate is a mixture of cyclo-aliphatic polyester and polycarbonate.

Regarding claim 3, the substrate can be PCCD and thus would consist essentially of cyclo-aliphatic diols and diacids.(Col. 4, ll. 66-67)

Regarding claim 4, the substrate can be cyclo-aliphatic polyester(Col. 1, ll. 57)  
and the substrate can 99.94% resin indicating the substrate can consist essentially of cyclo-aliphatic polyester.

Regarding claims 5 and 6, the substrate can be 1-99 parts polycarbonate.(Col. 9, ll. 60-63)

Regarding claim 7, the polycarbonate can be bisphenol-A.(Col. 2, ll. 60)

Regarding claims 8 and 9, the substrate can be 5 mils thick.(Col. 10, ll. 51-54)

Regarding claim 10, the cyclo-aliphatic polyester can be PCCD and the polycarbonate can be BPA.(Col. 5, ll. 24-32)

Regarding claim 11, the substrate has a transparency of greater than 87%.(Col. 10, ll. 29)

Regarding claim 12, MacGregor et al. does not disclose the specifics of the glass transition temperature. However, both the reference and the claims are directed to the same material, namely a mixture of polycarbonate and PCCD and would therefore have glass transition temperatures in the same range.

Regarding claim 13, the substrate can be 1-99 parts polyester.(Col. 9, ll. 58-63)

Regarding claims 20 and 21, the substrate can have a decorative area printed on it. Since this decorative area is between the substrate and the base, it would be effectively transferred to the base.(Col. 10, ll. 52-55)

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacGregor et al.

MacGregor et al. discloses an impact modifier can be added to the substrate but does not disclose the specific amount.(Col. 9, ll. 64-67) The reference also discloses other additions to the substrate which can comprise 0-10% of the substrate.(Col. 6, ll.

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49-51) The reference also discloses the substrate can comprise 70%-99.4% polycarbonate and cyclo-aliphatic polyester.(Col. 6, ll. 59-60) One in the art reading the reference as a whole would appreciate that the amount of impact modifier added would be comparable to the amounts of other additives added, particularly since the reference suggests these additives comprise 30% at most of the substrate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a small amount of impact modifier to the composition since MacGregor et al. shows adding an impact modifier, since only small amounts of the other additives are used, and since the reference indicates the total amount of additives to be less than 30%.

Regarding claim 15, since the substrate is intended to be transparent, one in the art would appreciate that the materials added to it would be transparent as well to preserve the required transparency of the final substrate.

Regarding claim 17, one in the art would appreciate that the impact modifier would necessarily have approximately the same refractive index as the polymer composition since otherwise it would reduce the transparency of the substrate. As the reference is using the same materials as applicant, one in the art would appreciate that the refractive index of the polymer compositions would be the same.

Regarding claim 18, MacGregor et al. discloses the impact modifier can be ABS.(Col. 10, ll. 6)

Regarding claim 19, MacGregor et al. discloses the polymer composition can be opaque.(Col. 1, ll. 48-50) All opaque materials have a color.

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9. Claims 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacGregor et al. as applied to claim 21 above, and further in view of the admitted prior art.

MacGregor et al. does not disclose removing the substrate from the base after injection molding the base against the substrate but it does disclose "in-mold decoration"(Col. 1, ll. 25-27). The admitted prior art discloses that in mold decoration can involve two types of processes. In one process the film is a permanent part of the final product and in the other, the film acts as a temporary carrier for the decoration.(Pg. 1, ll. 15-20) It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the product of MacGregor et al. by either in-mold decoration process as both are clearly well-known and conventional in-mold decoration processes.

Regarding claim 24, since the reference is using the same materials as applicant, the design would be transferred at the same time, i.e. during formation.

Regarding claims 26 and 27, MacGregor et al. discloses the polyester can be PCCD.(Col. 5, ll. 24-32)

Regarding claim 28, MacGregor et al. discloses the base can be polycarbonate.(Col. 11, ll. 43-50)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is (703)-



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**305-1352.** The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
BJM

January 23, 2003

  
Michael W. Ball  
Supervisory Patent Examiner  
Technology Center 1700